

## **Listing and Amendments to the Claims**

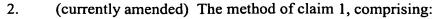
This listing of claims will replace the claims that were published in the PCT Application and the International Preliminary Examination Report:

1. (currently amended) A method for selecting a channel from a plurality of channels to use for receiving a transmission, each channel having a plurality of subcarriers for receiving symbols, the symbols comprising a plurality of data bits, the method comprising the acts of:

for each of the plurality of channels, performing the acts of:

- determining (120) a channel response estimate for each of the plurality of subcarriers;
- assigning (122) a subcarrier metric to each subcarrier based on the channel response estimate for that subcarrier;
- mapping (124) the subcarrier metric to each of the plurality of data bits;
- creating (126, 128) channel response data comprising the metrics assigned to each of the plurality of data bits for each subcarrier;
- determining (126, 128) an intermediate channel quality metric (CQM) for each group of N bits of the channel response data by determining which group of N bits corresponds to the weakest corresponding channel response estimate, where N is an integer; and
- selecting (128, 130) the intermediate channel quality metric corresponding to the weakest channel response estimate as the overall channel quality metric for the channel; and

selecting (132) the channel having the highest overall channel quality metric for receiving the transmission.



determining (128) an intermediate channel quality metric for a group of N bits of channel response data where a portion of the N bits are selected from channel response data corresponding to a subcarrier at one end of a frequency range of the channel and a portion of the N bits are selected from channel response data corresponding to a subcarrier at the other end of the frequency range of the channel.

- 3. (currently amended) The method of claim 1, comprising: de-interleaving (126) the channel response data.
- 4. (original) The method of claim 1 wherein the subcarrier metrics are monotonic and correspond to an associated subcarrier channel response estimate.
- 5. (original) The method of claim 1 wherein the symbols are encoded using a 64-QAM constellation.
- (original) The method of claim 1 comprising:
  decoding the symbols using a Viterbi algorithm.
- 7. (original) The method of claim 6 wherein N is proportional to the correction power of the Viterbi algorithm.
- 8. (currently amended) A device that selects a channel from a plurality of channels to use for receiving a transmission, each channel having a plurality of subcarriers for receiving symbols, the symbols comprising a plurality of data bits, the device comprising:

circuitry adapted to determine (120) a channel response estimate for each of the plurality of subcarriers;

circuitry adapted to assign (122) a subcarrier metric to each subcarrier based on the channel response estimate for that subcarrier;

circuitry adapted to map (124) the subcarrier metric to each of the plurality of data bits;

circuitry adapted to create (126, 128) channel response data comprising the metrics assigned to each of the plurality of data bits for each subcarrier;

circuitry adapted to determine (126, 128) an intermediate channel quality metric (CQM) for each group of N bits of the channel response data by determining which group of N bits corresponds to the weakest corresponding channel response estimate, where N is an integer; and

circuitry adapted to select (128, 130) the intermediate channel quality metric corresponding to the weakest channel response estimate as the overall channel quality metric for the channel; and

circuitry adapted to select (132) the channel having the highest overall channel quality metric for receiving the transmission.

9. (currently amended) The device of claim 8, comprising:

circuitry adapted to determine (128) an intermediate channel quality metric for a group of N bits of channel response data where a portion of the N bits are selected from channel response data corresponding to a subcarrier at one end of a frequency range of the channel and a portion of the N bits are selected from channel response data corresponding to a subcarrier at the other end of the frequency range of the channel.

- 10. (original) The device of claim 8 wherein the subcarrier metrics are monotonic and correspond to an associated subcarrier channel response estimate.
- 11. (original) The device of claim 8 wherein the symbols are encoded using a 64-QAM constellation.
- 12. (original) The device of claim 8 comprising: circuitry adapted to decode the symbols using a Viterbi algorithm.
- 13. (original) The device of claim 12 wherein N is proportional to the correction power of the Viterbi algorithm.



14. (currently amended) An Orthogonal Frequency Division Multiplexing (OFDM) receiver that selects a channel from a plurality of channels to use for receiving a convolutionally encoded OFDM transmission, each channel having a plurality of subcarriers for receiving symbols, the symbols comprising a plurality of data bits, the OFDM receiver comprising:

circuitry adapted to determine (120) a channel response estimate for each of the plurality of subcarriers;

circuitry adapted to assign (122) a subcarrier metric to each subcarrier based on the channel response estimate for that subcarrier;

circuitry adapted to map (124) the subcarrier metric to each of the plurality of data bits;

circuitry adapted to create (126, 128) channel response data comprising the metrics assigned to each of the plurality of data bits for each subcarrier;

circuitry adapted to determine (126,128) an intermediate channel quality metric (CQM) for each group of N bits of the channel response data by determining which group of N bits corresponds to the weakest corresponding channel response estimate, where N is an integer; and

circuitry adapted to select (126, 130) the intermediate channel quality metric corresponding to the weakest channel response estimate as the overall channel quality metric for the channel; and

circuitry adapted to select (132)-the channel having the highest overall channel quality metric for receiving the transmission.

15. (currently amended) The Orthogonal Frequency Division Multiplexing (OFDM) receiver of claim 14, comprising:

circuitry adapted to determine (128) an intermediate channel quality metric for a group of N bits of channel response data where a portion of the N bits are selected from channel response data corresponding to a subcarrier at one end of a frequency range of the channel and a portion of the N bits are selected from channel response data corresponding to a subcarrier at the other end of the frequency range of the channel.

- 16. (currently amended) The Orthogonal Frequency Division Multiplexing(OFDM) receiver of claim 14, comprising:circuitry adapted to de-interleave (126) the channel response data.
- 17. (original) The Orthogonal Frequency Division Multiplexing (OFDM) receiver of claim 14 wherein the subcarrier metrics are monotonic and correspond to an associated subcarrier channel response estimate.
- 18. (original) The Orthogonal Frequency Division Multiplexing (OFDM) receiver of claim 14 wherein the symbols are encoded using a 64-QAM constellation.
- 19. (original) The Orthogonal Frequency Division Multiplexing (OFDM) receiver of claim 14 comprising:

circuitry adapted to decode the symbols using a Viterbi algorithm.

20. (original) The Orthogonal Frequency Division Multiplexing (OFDM) receiver of claim 19 wherein N is proportional to the correction power of the Viterbi algorithm.